

Page 1

IN THE CIRCUIT COURT OF THE
ELEVENTH JUDICIAL CIRCUIT IN
AND FOR DADE COUNTY, FLORIDA
GENERAL JURISDICTION DIVISION

CASE No. 91-49738 CA22

NORMA R. BROIN, et al.,
Plaintiffs,
vs.
PHILIP MORRIS COMPANIES, INC.,
et al.,
Defendants

22nd Floor, Concord Bldg.
Miami, Florida
Tuesday, May 20, 1997
6:30 p.m.

TELEPHONE DEPOSITION
OF
MARTIN J. CLINE, M.D.

Taken before MARIA TORRE-VERDEJO, RMR,
Certified Shorthand Reporter and Notary Public in and
for the State of Florida at Large, pursuant to Notice
of Taking Deposition filed in the above cause.

Page 4

Q. What were those trials?
A. The first one concerned a possible cancer
causation by exposure to toxic fumes.
The second one concerned possible
causation of leukemia by exposure to irradiation.
Q. How long ago were each of these trials?
A. Well, the first one was quite some time
ago. I would be hard pressed to pinpoint it. Probably
fifteen years -- perhaps.
The second one, the irradiation case, was
last year.
Q. The one that was fifteen years
ago -- where was that?
A. It was in Southern California.
Q. Which side were you the expert for -- the
plaintiff or the defendant?
A. The defendant.
Q. In the case related to whether or not
leukemia was caused by exposure to irradiation, for
which side did you serve as an expert?
A. The defendant.
Q. Who was the defendant in that case?
A. Southern California Edison Company.
Q. Did that trial reach a conclusion?
A. Yes.

Page 2

APPEARANCES:

LAW OFFICES OF STANLEY M. ROSENBLATT,
BY: JOHN HOAG, ESQUIRE,
On behalf of the Plaintiffs.
(In Miami, Florida.)

WOMBLE, CARLYLE, SANDRIDGE & RICE,
BY: URSULA M. HENNINGER, ESQUIRE,
On behalf of the Defendant R. J. Reynolds.
(In Los Angeles, California.)

PRESENT IN CALIFORNIA:
MARTIN J. CLINE, M.D.,
URSULA M. HENNINGER, ESQUIRE,
DREW McNEILL, with Womble Carlyle,
ROBERTA J. ANDERSON, Notary Public
who administered the oath to the Witness.

PRESENT IN MIAMI, FLORIDA:
JOHN HOAG, ESQUIRE,
MARIA J. TORRE-VERDEJO, Court Reporter.

INDEX

WITNESS: MARTIN J. CLINE, M.D.

Page 5

Q. Was there a jury involved?
A. Yes, there was.
Q. What was the verdict?
A. The defendants won. Southern California
Edison was not liable.
Q. Have you reviewed a transcript of your
testimony in that case?
A. I reviewed part of the transcript sometime
ago, not the entire transcript.
Q. What Court was it that you testified in?
A. Do you mean was it in Federal Court or
Civil Court?
Q. All of that: the name of the court, where
it is located.
A. Well, it was located in San Diego County,
in San Diego.
I think it was in Federal Court, but I am
not certain.
Q. Who was the judge?
A. I think his name is Napoleon Jones, but I
am not certain of that.
Q. Approximately what month did you testify?
A. I don't really remember.
It was a little over a year ago, so it was
probably early in the year.

Page 3

Thereupon:
MARTIN J. CLINE, M.D.
called as a witness and having been first duly sworn
was examined and testified as follows:
DIRECT EXAMINATION
BY MR. HOAG:
Q. Would you state your name for the record,
please.
A. Martin J. Cline.
Q. Have you ever been deposed before?
A. No.
Q. Have you ever given any sworn testimony
before --
A. Yes.
Q. -- with a court reporter or somebody
present that is transcribing the testimony?
A. Yes.
Q. How many times?
A. Twice.
Q. What were the circumstances under which
you provided sworn testimony?
A. I was an expert witness in some trials.
Q. Okay. So you were actually an expert
witness at the trial but you were not deposed?
A. That's correct.

Page 6

Q. Early in 1996. Is that what you are
saying?
A. I think so.
Q. What was the plaintiff's name or what is
the plaintiff's name?
A. It's fair to say I don't remember.
Q. Did the plaintiff actually die from
leukemia or have leukemia?
A. Let me try and think of the case for just
a moment.
The individual had chronic myelocytic
leukemia and I believe was still alive.
Q. What was the plaintiff's claim as far as
liability of the utility company was concerned?
A. The utility company operated a nuclear
power plant and the plaintiff claimed that he was
exposed to a higher than permissible level of
irradiation.
There had been a minor accident at the
plant and although conditions are monitored he
believed he was exposed to a large amount of
irradiation.
Q. And your testimony was that he wasn't
exposed to that much?
A. No.

51696 9762

<p>Page 13</p> <p>1 me with specific articles in those searches.</p> <p>2 Q What specific articles are you referring</p> <p>3 to?</p> <p>4 A. Well, I have asked them for probably</p> <p>5 somewhere between one- and two hundred articles so I</p> <p>6 don't remember them all; but I think you have been</p> <p>7 provided with a list, if I am not mistaken, of a</p> <p>8 number of the articles that I requested.</p> <p>9 That list probably encompasses ninety- or</p> <p>10 ninety-five percent of the articles.</p> <p>11 Q. One hundred and nine. Does that sound</p> <p>12 right?</p> <p>13 A. I beg your pardon?</p> <p>14 Q. One hundred and nine articles?</p> <p>15 MS. HENNINGER: He has a copy of the</p> <p>16 list.</p> <p>17 A. Yes, that would be correct.</p> <p>18 BY MR. HOAG:</p> <p>19 Q. We have been informed that this is a list</p> <p>20 of the references upon which you will rely as the</p> <p>21 basis for any opinion that you give in this case or</p> <p>22 the trial.</p> <p>23 Is that correct?</p> <p>24 A. Yes, I will certainly rely on some of</p> <p>25 these articles.</p>	<p>Page 16</p> <p>1 when you say: Am I familiar? are you referring to a</p> <p>2 specific one?</p> <p>3 Q. Yes.</p> <p>4 I am referring to the one that was, I</p> <p>5 believe, completed in 1994.</p> <p>6 A. I probably have read it.</p> <p>7 Q. I don't believe that is on your list of</p> <p>8 references that you are going to rely on.</p> <p>9 Is that correct?</p> <p>10 A. I would think not, but I would have to</p> <p>11 review the list.</p> <p>12 You have it in front of you.</p> <p>13 You can review it as well as I, but I</p> <p>14 think not.</p> <p>15 Q. Are you in fact not going to rely on the</p> <p>16 phantom study or any of the phantom studies as the</p> <p>17 basis of any of your opinions?</p> <p>18 A. I am not really an expert in epidemiology</p> <p>19 and the study which you referred to is an</p> <p>20 epidemiologic study; and since I regard it as outside</p> <p>21 the strict area of my expertise I would not rely on</p> <p>22 it, that's correct.</p> <p>23 Q. So you don't rely on any epidemiological</p> <p>24 studies as the basis for any portion of your opinions?</p> <p>25 A. You may be using the word "relying" in a</p>
<p>Page 14</p> <p>1 I don't necessarily rely on all of them</p> <p>2 but they are articles that I have read and they are</p> <p>3 pertinent, yes.</p> <p>4 I guess the simple answer is yes.</p> <p>5 Q. You have read all of these articles?</p> <p>6 A. Yes.</p> <p>7 Q. Are there any articles other than</p> <p>8 these 109 that you are going to rely on?</p> <p>9 A. Not as of the moment, although I presume</p> <p>10 that between now and the time of the trial I will</p> <p>11 continue to read and I may get additional information,</p> <p>12 unless that is prohibited in some way.</p> <p>13 Q. To the extent that you are going to use</p> <p>14 additional information that we are not aware of at</p> <p>15 this point that you may rely on, we need to be</p> <p>16 informed of that so that we have an opportunity to</p> <p>17 depose you or complete our deposition as related to</p> <p>18 any new information.</p> <p>19 Can you hear me?</p> <p>20 A. Yes, I can.</p> <p>21 I will also rely on all my background</p> <p>22 knowledge in this field, which goes back over many</p> <p>23 years, and that would encompass hundreds of articles.</p> <p>24 I mean you understand that, of course.</p> <p>25 Q. Do you mean hundreds of articles in</p>	<p>Page 17</p> <p>1 different way than I am doing.</p> <p>2 I am an expert in, let's say, the field of</p> <p>3 molecular toxicology and in order to give an opinion</p> <p>4 in the field of molecular toxicology I would not have</p> <p>5 to use your phrase "rely" on an epidemiologic study.</p> <p>6 Q. Is your area of expertise limited to</p> <p>7 molecular toxicology?</p> <p>8 A. Well, I think I am probably an expert in</p> <p>9 immunological diseases, probably in molecular</p> <p>10 abnormally in cancer and molecular abnormally in</p> <p>11 cancer causation.</p> <p>12 Those would be my primary areas of</p> <p>13 expertise.</p> <p>14 Q. I am sorry.</p> <p>15 Molecular abnormally in cancer and cancer</p> <p>16 causation; is that correct?</p> <p>17 A. Right.</p> <p>18 Q. Any other areas of expertise?</p> <p>19 A. Well, I think I would leave it at that for</p> <p>20 the moment.</p> <p>21 And, yes, those would be the only ones</p> <p>22 that I would say I was an expert in.</p> <p>23 Q. What is an example of molecular --</p> <p>24 A. Maybe I should add that I am also a</p> <p>25 clinician.</p>
<p>Page 15</p> <p>1 addition to the 109 that we have been provided?</p> <p>2 A. I have read perhaps -- yes -- hundreds</p> <p>3 of articles in this field and related fields that</p> <p>4 encompass thousands of articles; but to remember all</p> <p>5 of them and to detail them would be impossible, I</p> <p>6 think.</p> <p>7 Q. Who prepared this list of 109 articles?</p> <p>8 A. I did.</p> <p>9 Ms. Henninger asked me to provide her with</p> <p>10 the list of the articles that I think are important</p> <p>11 that I would immediately rely on, in a sense, and I</p> <p>12 then provided her with this list of articles which I</p> <p>13 have reviewed.</p> <p>14 Q. Out of this list of 109, do you know which</p> <p>15 ones you are not going to rely on?</p> <p>16 A. Well, I suppose I am going to -- It is</p> <p>17 going to depend on the questions that are asked of me</p> <p>18 both by the lawyers for the plaintiff and those for</p> <p>19 the defense.</p> <p>20 If they don't ask me questions that are</p> <p>21 related to some of these articles I won't make any</p> <p>22 statements about them, I presume.</p> <p>23 Q. Are you familiar with the phantom study on</p> <p>24 the environmental tobacco smoke and its health effect?</p> <p>25 A. I have read several phantom studies, so</p>	<p>Page 18</p> <p>1 I don't know if you consider all</p> <p>2 clinicians experts in their discipline, but I am a</p> <p>3 clinician that does take care of patients with cancer</p> <p>4 so I suppose in that sense I would be an expert in</p> <p>5 clinical aspects of cancer and blood diseases.</p> <p>6 Q. For which types of cancer have you treated</p> <p>7 patients?</p> <p>8 A. Well, most of the common types.</p> <p>9 Q. So that would certainly include lung</p> <p>10 cancer.</p> <p>11 A. Lung cancer, colon cancer, breast cancer,</p> <p>12 leukemias, lymphomas, angios- and so forth.</p> <p>13 Q. What is an example of a molecular</p> <p>14 abnormality that is related to cancer causation?</p> <p>15 A. A rearrangement of the ABL gene -- spelled</p> <p>16 A-B-L -- in chronic myelocytic leukemia.</p> <p>17 Q. Do you have any examples of molecular</p> <p>18 abnormalities in lung cancer causation?</p> <p>19 A. Well, there are a number of molecular</p> <p>20 abnormalities that occur in various types of lung</p> <p>21 cancer.</p> <p>22 It's not quite so clear what their role is</p> <p>23 in causation.</p> <p>24 Q. Does that mean you don't have any examples</p> <p>25 of molecular abnormalities that are related to lung</p>

Page 19

1 cancer causation?
 2 A. Well, I will state it again.
 3 A number of molecular abnormalities have
 4 been defined in various types of lung cancer.
 5 It is really unclear where they fit in the
 6 sequence of carcinogenesis or cause.
 7 Q. None of those so far are useful as far as
 8 dealing with the issue of lung cancer causation; is
 9 that correct?
 10 A. No, I would not phrase it that way.
 11 I think they are quite useful in thinking
 12 about possible modules of tumor evolution.
 13 They are certainly useful in directing
 14 areas of research.
 15 They may even -- well, not in lung cancer,
 16 but they might even be useful projecting strategies of
 17 treatment; but that is not quite so clear in lung
 18 cancer.
 19 Q. Does cigarette smoking cause lung cancer?
 20 MS. HENNINGER: Objection to the form of
 21 the question.
 22 Are you talking about direct smoke or
 23 environmental tobacco smoke?
 24 MR. HOAG: I am talking about direct
 25 cigarette smoking.

Page 20

1 BY MR. HOAG:
 2 Q. Does direct cigarette smoking cause lung
 3 cancer?
 4 MS. HENNINGER: I would object on the
 5 grounds this is irrelevant and immaterial in
 6 this case.
 7 MR. HOAG: You can answer.
 8 THE WITNESS: Well, if by "cause" you mean
 9 a population base or epidemiologic risk factor,
 10 then cigarette smoking is related to certain
 11 types of lung cancer.
 12 If you mean: In a particular individual
 13 is the cigarette smoking the cause of his or
 14 her cancer? then you are on shakier ground and
 15 it is difficult to say "yes" or "no." There is
 16 no evidence.
 17 BY MR. HOAG:
 18 Q. So if someone is a heavy smoker and they
 19 contract lung cancer you can say definitively that
 20 cigarette smoking caused that particular lung cancer?
 21 Is that what you are saying?
 22 MS. HENNINGER: Objection to the form of
 23 that question.
 24 That's not what he said.
 25 BY MR. HOAG:

Page 21

1 Q. Is that what you are saying, sir?
 2 A. No, that is not what I said.
 3 Q. Is that wrong?
 4 Is that incorrect?
 5 A. That is incorrect, as you stated it.
 6 I can restate what I did say.
 7 Q. Well, let me ask you this: Let's say
 8 someone is a three-pack a day smoker --
 9 A. Okay.
 10 Q. -- for twenty years and they contract lung
 11 cancer.
 12 Would you be able to say, based on that
 13 and based on everything you know about lung cancer and
 14 its causes, that for that individual cigarette smoking
 15 was the cause of the lung cancer?
 16 A. No.
 17 You could hazard a guess that it was a
 18 possible cause or a contributing factor, but you
 19 couldn't say with certainty that it was the cause of
 20 his or her lung cancer.
 21 Q. You mean you could not say it with
 22 certainty?
 23 A. I could not, yes.
 24 You are asking me.
 25 Q. Of course you know there a lot of people

Page 22

1 that could say it with certainty.
 2 You are aware of that; is that correct?
 3 MS. HENNINGER: Objection.
 4 He can't answer for other people.
 5 BY MR. HOAG:
 6 Q. You have reviewed depositions of others.
 7 Correct?
 8 A. Yes.
 9 I told you some, yes.
 10 Q. So you know that there are
 11 scientists -- epidemiologists, lung cancer
 12 specialists -- who based on that fact pattern can say
 13 with certainty that that person's lung cancer was
 14 caused by cigarette smoking.
 15 You are aware of that, aren't you?
 16 MS. HENNINGER: Objection to the form of
 17 the question.
 18 THE WITNESS: Well, on the basis of the
 19 depositions that I have read, which are Petty
 20 and Cahan, for example, I would say no because
 21 you could not define them as experts -- and I
 22 guess you would disagree with that -- so the
 23 to answer to your question is "no."
 24 BY MR. HOAG:
 25 Q. So as far as you could go then, if you

Page 23

1 knew someone was a three-pack-a-day smoker for twenty
 2 years and they contracted lung cancer, as far as you
 3 would go is that you would be reasonably certain that
 4 cigarette smoking was a contributing factor; is that
 5 correct?
 6 MS. HENNINGER: Objection.
 7 BY MR. HOAG:
 8 Q. Is that correct, sir -- it could have been
 9 a contributing factor?
 10 Is that correct?
 11 A. Restate it and I will answer it.
 12 If you want precision, if you restate it I
 13 will try and answer it as clearly as I can.
 14 So, restate it, please.
 15 Q. Would you be able to say with certainty
 16 that cigarette smoking was a contributing factor to
 17 the individual's lung cancer who contracted lung
 18 cancer after smoking three packs of cigarettes a day
 19 for twenty years?
 20 A. Then the answer is no, I could not say
 21 with certainty.
 22 Q. So you could not even say with certainty
 23 that was a contributing factor.
 24 Is that correct?
 25 A. That is true, because I can envision many

Page 24

1 scenarios where it had nothing to do with it.
 2 Q. Have you ever done any work for tobacco
 3 companies prior to this case?
 4 MS. HENNINGER: What do you mean by "done
 5 work"?
 6 MR. HOAG: Well, work means getting paid
 7 for doing work, for tobacco companies.
 8 BY MR. HOAG:
 9 Q. Have you ever done any work for tobacco
 10 companies where you got paid, other than the work you
 11 are doing for this particular case?
 12 MS. HENNINGER: Let me object to the form
 13 of the question.
 14 That is vague and ambiguous.
 15 MR. HOAG: You can answer it, sir.
 16 THE WITNESS: For a while I sat on the
 17 Scientific Advisory Board of Reynolds and for
 18 that I was paid a modest honorarium per diem.
 19 I wouldn't phrase it in terms of work.
 20 I mean the amounts of monies involved were
 21 not so significant as to constitute my doing
 22 something for remuneration.
 23 BY MR. HOAG:
 24 Q. When did you serve on the scientific
 25 Advisory Board of R. J. Reynolds?

51696 9764

Page 25

1 A. For a period when they were just trying to
2 develop a cigarette that heated rather than burned
3 tobacco.
4 I'd have to guess the years.
5 They were probably about 1990 and 1992.
6 Q. Are you sure it was not in the eighties?
7 A. It could have been the late eighties, but
8 I thought it was in the early nineties.
9 Q. What did you get paid for being on that
10 advisory board?
11 A. I think I got paid -- I doubt it was more
12 than \$600 or \$1200 a year.
13 Q. How many years did you serve on that
14 advisory board?
15 A. I would think it was probably two years,
16 while they were developing this new type of cigarette
17 and testing it for its potential genotoxicity.
18 Q. What were your duties as a member of that
19 scientific advisory board?
20 A. To evaluate scientific information that
21 scientists were generating.
22 I am considered an expert in molecular
23 genotoxicity and they wanted a strict evaluation of
24 the types of experiments they were doing and an
25 evaluation of their data.

Page 26

1 Q. They published a 700-page monograph;
2 didn't they?
3 A. If they did, I'm not aware of it.
4 Q. You were on the Scientific Advisory Board
5 and you are not aware they published a 700-page
6 monograph; is that right?
7 A. That's what I said.
8 Q. But they published a 700-page monograph.
9 A. That was the question.
10 Q. How much are you getting paid per hour for
11 serving as an expert witness in this case, the Broin
12 case?
13 A. \$350 per hour.
14 Q. How many hours have you worked so far?
15 A. I am going to estimate.
16 I would guess in the Broin case somewhere
17 around twenty hours, probably.
18 Q. Have you done any work in any other cases?
19 A. Yes, one other.
20 Q. What is the other one?
21 A. The name of the case was Conner. It's a
22 cigarette-smoking case in Jacksonville, Florida.
23 Q. How many hours have you worked on the
24 Conner case?
25 A. Again I would have to estimate.

Page 27

1 I would guess a total somewhere
2 near -- about one hundred hours.
3 Q. Did you get \$350 an hour for that work?
4 A. Yes.
5 Q. Did you testify at trial?
6 A. No.
7 Q. Were you deposed in that case?
8 A. No.
9 Q. What was the nature of your expert
10 assistance in the Conner case?
11 A. Well, I was --
12 MS. HENNINGER: Object for the record on
13 the ground that he has not given any testimony
14 in that case.
15 He was designated as an expert in the
16 disclosure statement in that case as best he
17 recalls it.
18 This is not a deposition in the Conner
19 case and therefore any privileges that would
20 apply to experts and witnesses in that case are
21 still applicable.
22 BY MR. HOAG:
23 Q. So you were listed as an expert in that
24 case.
25 A. That's right.

Page 28

1 Q. What did the disclosure statement say
2 concerning your area of expertise in the Conner case?
3 A. I think very similar to what I have told
4 you are my areas of expertise. I don't think it
5 included the clinical aspects. Somewhere I decided
6 that I had some expertise.
7 They are quite similar to this listing,
8 the areas of expertise.
9 Q. Have you been paid for all the work you
10 did in the Conner case so far?
11 A. No.
12 Q. Have you billed for it all yet?
13 A. Yes.
14 Q. How much of it have you been paid so far?
15 A. Oh, I would guess about fifty percent.
16 Q. So your total billable hours in the Conner
17 case is about one hundred hours, about \$35,000 worth
18 of billable hours.
19 Is that correct?
20 A. Yes.
21 Q. On this case so far it is twenty hours.
22 That is about \$7,000.
23 Is that correct?
24 A. That's correct.
25 Q. Do you plan to do any additional work in

Page 29

1 this case, meaning the Broin case?
2 A. Do I plan?
3 Q. Yes.
4 A. Well, if I am actually called as an expert,
5 I would say yes, I would anticipate that.
6 Q. Other than the Conner case, have you done
7 any other work for tobacco companies?
8 A. No.
9 Of course I don't work directly for the
10 company, you understand.
11 I have been an expert for a law firm that
12 represents the company.
13 Q. So you have never worked directly for a
14 tobacco company?
15 A. Well, I have never worked for a tobacco
16 company, that's right.
17 Q. You have been hired by attorneys who work
18 for a tobacco company?
19 A. In the Conner case and in this case, yes.
20 Q. How about any other cases?
21 A. No.
22 Q. Have you ever been hired by an attorney
23 who works for a tobacco company to do any work other
24 than the work you did in the Conner case and the Broin
25 case?

Page 30

1 A. Not that I recall.
2 Q. Never?
3 A. Well, I am thinking that I have given
4 seminars to lawyers and some of them represent tobacco
5 companies.
6 I have given such seminars maybe four- to
7 six times over the last dozen years, but I wouldn't
8 consider that working for the tobacco companies, so
9 there's a little question of definition.
10 Q. Four- to six times over the last twelve
11 years. That is pretty much all you recollect having
12 done to present any kind of information to tobacco
13 companies or tobacco company employees; is that
14 correct?
15 MS. HENNINGER: Objection to the form of
16 the question.
17 THE WITNESS: Redefine your question.
18 I will try to answer it as clearly as I
19 can.
20 Restate it, please.
21 BY MR. HOAG:
22 Q. Other than the seminars you talked about
23 that you gave to lawyers four to six times over the
24 past twelve years --
25 A. That's right, yes.

1 Q. -- any other work you did or were paid for
2 by tobacco companies in the past twelve years?
3 MS. HENNINGER: Object to the form of that
4 question.
5 Vague and ambiguous.
6 THE WITNESS: I am going to say no,
7 because there is no other work.
8 BY MR. HOAG:
9 Q. How about going back further than twelve
10 years ago?
11 Any other work?
12 A. Working for the tobacco companies, no.
13 I have done work at the University that
14 has been supported by the tobacco companies, but I
15 have never worked for the tobacco companies.
16 In terms of personal, salary there really
17 was none or negligible amounts involved that would
18 have come from the tobacco companies who supported the
19 University research so the answer is no. I worked for
20 the University, but I have had tobacco grants.
21 Q. Within the past twelve years?
22 A. Yes.
23 Q. Now going back to the seminars, to lawyers
24 who represent tobacco companies, what was the nature
25 of those seminars?

1 MS. HENNINGER: I am also going to object
2 whenever these conferences could be considered
3 privileged and expert work.
4 BY MR. HOAG:
5 Q. What was the nature of those seminars that
6 you gave to lawyers that worked for tobacco companies?
7 A. Generally. I am not sure they all worked
8 for tobacco companies.
9 I am hesitating a little, but I've given
10 seminars to lawyers from other firms, I think, that
11 have nothing to do with tobacco companies; but in
12 general the seminars are always about what we know
13 about cancer causation.
14 Q. What we know about all cancer causation or
15 just specific?
16 A. Molecular level.
17 What we know about the molecular basis of
18 cancer causation, what we understand about the genes
19 that go wrong that lead to cancer development.
20 Q. Cancer causation at the molecular level?
21 A. Right.
22 Q. How long do these seminars last?
23 A. Oh, I would say a typical one is probably
24 an hour.
25 Q. So you can pretty much cover what we know

1 about cancer causation at the molecular level in an
2 hour.
3 Right?
4 A. Well, it's the level most lawyers can
5 understand.
6 I think that is probably right, yes.
7 If I were delivering it to a scientific
8 audience, of course I would go into considerably more
9 detail; but basically in these cases I was delivering
10 the talk to mostly intelligent laymen who would have
11 had a basic college background in biology, and so I
12 had to tailor the seminar to their level of
13 sophistication, yes, generally in an hour.
14 I find most audiences' attention begin to
15 wane after that period so one really has to compress
16 it and simplify it.
17 Q. How many lawyers attended each seminar?
18 A. Oh, let me see.
19 To the best of my recollection -- let me
20 see -- probably somewhere between fifteen and
21 twenty-five on the average.
22 Well, I hesitate a little because I don't
23 remember each of the seminars.
24 There might be as few as five
25 lawyers -- I don't remember all of them -- but there

1 probably would be no more than twenty-five.
2 Q. Do you market yourself as a seminar
3 presenter or are you contacted and asked if you will
4 do a special seminar; or is it a combination of those
5 two?
6 A. I would be a poor marketer if I did that.
7 No, I guess I generally have been asked.
8 I have been asked for by many groups other
9 than lawyers. It is not exclusively lawyers.
10 I am asked, of course, by scientific
11 professional organizations.
12 I have been asked by colleges and by local
13 high schools.
14 The legal presentations would only be one
15 of a group.
16 I wouldn't say I market myself, no.
17 Q. When you provide these seminars to
18 lawyers, how much do you charge?
19 A. How much did I charge?
20 Q. Yes.
21 A. I don't remember what the fees were, but I
22 might get honorarium for presentation as a
23 professional scientist, which would include lawyers,
24 maybe \$500.
25 I think -- Well, I don't think I ever --

1 Well, maybe \$1,000, but to professional
2 societies.
3 The lawyers would be somewhere in that
4 range, I suppose.
5 Q. Did you ever provide any seminars to the
6 lawyers of Schook-Hardy?
7 A. Yes, I think I did.
8 Q. Did you provide a seminar to
9 Schook-Hardy --
10 A. Yes.
11 Q. -- in the past twelve years?
12 A. Yes.
13 I think I did one there.
14 Q. In the past twelve years?
15 A. That would get us --
16 I don't know the exact timing, whether it
17 was in the last twelve years or longer, but I do
18 remember going to Kansas City at one time and giving a
19 seminar, yes.
20 Q. The work you did -- was it just at one
21 University, at UCLA --
22 A. Yes.
23 Q. -- that was supported by tobacco
24 companies.
25 What tobacco companies supported the

1 research?
2 A. Well, there are five of six that supported
3 it.
4 THE WITNESS: If you will excuse me just a
5 minute, I will get something to drink.
6 MS. HENNINGER: Maybe it's time to take a
7 short break.
8 (Thereupon, a short recess was taken.)
9 BY MR. HOAG:
10 Q. I want to go back to the experience you
11 had on the Scientific Advisory Board for RJR.
12 MS. HENNINGER: I'm sorry.
13 What did you say? You got cut off.
14 MR. HOAG: I'm sorry.
15 I said I wanted to go back to the
16 experience the doctor had on the Scientific
17 Advisory Board for RJR.
18 THE WITNESS: Okay.
19 BY MR. HOAG:
20 Q. Did you make any decisions as a member of
21 the Scientific Advisory Board as to who would get
22 funding for RJR projects?
23 A. No.
24 Q. What specifically were your duties on the
25 board?

Page 37

1 A. I was asked to evaluate their research
2 program in genotoxicity; not so much as to design
3 experiments but as to evaluate the experiments they
4 were doing: Were they good? Were they critical?
5 I guess I was also asked would I add any
6 other experiments to try and define the area.
7 Those were my duties.
8 Q. Do you know whether or not they did any
9 experiments at that time related to sidestream smoke?
10 A. To the best of my recollection, they did.
11 Q. Do you know what a nitrosomine is?
12 A. Yes, in general terms.
13 I have a general image of its chemical
14 structure, yes.
15 Q. Do you know that they measured the level
16 of nitrosomines in sidestream smoke and compared it to
17 the level of nitrosomines in mainstream smoke?
18 A. No, I don't recall that.
19 Q. Do you know that they measured the level
20 of nitrosomines in sidestream smoke on production
21 cigarettes and compared it to the level of
22 nitrosomines in sidestream smoke on the new cigarette
23 that they were developing?
24 A. I don't remember specifically
25 nitrosomines.

Page 38

1 I know they examined a great range of
2 chemical compounds, but I don't specifically remember
3 nitrosomines.
4 Q. You do know that tobacco, specifically NNK
5 nitrosomines, is a carcinogenic compound.
6 Correct?
7 A. If we have the same definition of
8 carcinogenic compound, the answer would be yes.
9 By carcinogenic compound I take it you
10 mean a chemical compound which at a certain
11 concentration will produce a tumor in a test animal.
12 If that is your operational definition,
13 the answer would be yes.
14 Q. That is your operational definition; is
15 that correct?
16 A. Well, if you have another definition you
17 can give it to me and in general I will try to answer
18 the question.
19 Q. No. I want to know what your definition
20 is.
21 I guess you just told me that that is your
22 definition.
23 A. Yes.
24 Q. Based on that operational definition you
25 know that tobacco, specifically NNK nitrosomines, is a

Page 39

1 carcinogenic compound.
2 Correct?
3 A. I answered that, yes.
4 I thought I had answered it.
5 Q. I just want to make sure that I am
6 understanding you.
7 A. Yes.
8 I thought I had answered it. I defined it
9 and then I said yes.
10 Q. During the research that RJR did on that
11 new cigarette they pretty much admitted that the
12 sidestream smoke from the regular production
13 cigarettes contained carcinogenic compounds.
14 MS. HENNINGER: What production of
15 cigarettes are you talking about?
16 MR. HOAG: I am asking the witness now.
17 Does he have a question?
18 If he understands my question, then I
19 would like him to answer it.
20 THE WITNESS: The witness has gotten lost
21 so please re-ask the question.
22 THE WITNESS: Read it back to me.
23 MR. HOAG: Yes, you can read it back to
24 him.
25 (Thereupon the question referred to was

Page 40

1 read back by the reporter as above recorded.)
2 MS. HENNINGER: I am going to object to
3 the form of the question in that it assumes
4 facts not in evidence.
5 BY MR. HOAG:
6 Q. Isn't that correct sir?
7 A. I don't know that they admitted that, no.
8 I don't know.
9 Q. Well, if in fact they did studies that
10 showed that the level of NNK nitrosomines in
11 sidestream smoke in their regular production
12 cigarettes was reduced significantly in their new
13 cigarette that they were trying to market, wouldn't
14 that in fact be an admission that they knew the
15 regular production cigarettes contained carcinogenic
16 compounds in the sidestream smoke?
17 MS. HENNINGER: Object to the form of the
18 question.
19 Go ahead.
20 THE WITNESS: I thought I had already said
21 that I did not recall their data with respect
22 to NNK nitrosomine.
23 BY MR. HOAG:
24 Q. My question was a hypothetical.
25 If in fact that is what their data

Page 41

1 revealed, wouldn't that be an admission that the
2 sidestream smoke from their cigarettes contained
3 carcinogenic compounds?
4 MS. HENNINGER: I am objecting again to
5 the form of the question.
6 THE WITNESS: Excuse me.
7 I have gotten lost in the hypothetical
8 there.
9 Too many variables in the question.
10 If you want to break it down, I will try
11 and answer it as best as I can, but I don't
12 really understand it at this point.
13 BY MR. HOAG:
14 Q. Let's start with this assumption: J. R.
15 Reynolds funded research that found that the
16 sidestream smoke emanating from their production
17 cigarettes was significantly reduced, that the NNK
18 nitrosomines --
19 I will start again.
20 A. Okay.
21 Q. Assuming that RJR funded research that
22 showed that the NNK nitrosomines emanating from the
23 sidestream smoke of their production cigarettes was
24 significantly lowered --
25 A. Yes.

Page 42

1 Q. -- in their Premier cigarette, which was
2 their new cigarette where you were on this Scientific
3 Advisory Board related to it --
4 A. Okay.
5 Q. -- wouldn't that be an admission by RJR
6 that they knew their production cigarettes contained a
7 significant level of carcinogenic compounds?
8 MS. HENNINGER: We object to the form of
9 the question.
10 THE WITNESS: And I guess I would have to
11 say no, the way you posed the question.
12 I mean I could help you by rephrasing it,
13 but I guess I will not.
14 They knew or at least reported data for a
15 variety of contents, and I don't remember the
16 details that were different than the sidestream
17 smoke.
18 Their standard reference cigarette, which
19 is a Kentucky reference, whatever number
20 reference, and their new cigarette that they
21 were testing, Premier -- they knew that there
22 were differences in composition of a lot of
23 different chemicals.
24 For example carbon dioxide was one, where
25 one burned and the other one was not burned.

1 That does not mean that because the levels were
2 different that carbon dioxide was a carcinogen.
3 Can you hear me?
4 BY MR. HOAG:
5 Q. Yes, I can hear you.
6 A. I was looking out the window. I thought
7 you couldn't hear.
8 The difference in the level does not mean
9 that one has a carcinogen not present in the other.
10 That would not be really close reasoning.
11 Q. Well, R. J. Reynolds did market that
12 cigarette as a safer cigarette, didn't they?
13 A. Did they ever market it?
14 I thought they tested it and that they
15 test marketed it and I thought it raised a great hue
16 and cry.
17 To the best of my recollection I don't
18 think they ever sold it, did they?
19 Q. What is the great hue and cry that you
20 recall was raised?
21 A. Well, I remember --
22 Well, I don't remember the details, but I
23 remember there were a number of newspaper articles
24 saying that this was some sort of a ploy.
25 I don't remember the details. That was

1 several years ago.
2 All I know is that they ran into a lot of
3 adverse publicity.
4 I think they also ran into the problem
5 that smokers did not like it.
6 I never knew all the details to
7 substantiate that, but all I know is that they ran
8 into enough difficulty that they never really marketed
9 the product.
10 Q. Do you recall the adverse publicity
11 included the fact that R. J. Reynolds met with
12 government officials and told them that this was a
13 safer cigarette, that unlike the other cigarettes it
14 would not cause cancer or other diseases?
15 MS. HENNINGER: Object to the form of the
16 question.
17 This is another hypothetical.
18 BY MR. HOAG:
19 Q. Do you recall that?
20 MR. HOAG: No, it is a real question.
21 It really happened.
22 I just want to know if he recalls it.
23 A. Do I recall it?
24 BY MR. HOAG:
25 Q. Yes.

1 A. No.
2 I don't have any knowledge of that, no.
3 Q. Do you recall ever having any
4 conversations with RJR representatives telling you or
5 anyone else on the Scientific Advisory Board to make
6 sure you did not use the word "safer cigarette"?
7 A. No.
8 Q. Well, was it important not to use the word
9 "safer" among R. J. Reynolds executives?
10 MS. HENNINGER: Objection.
11 THE WITNESS: I just said "No." I mean I
12 was there to evaluate.
13 I was there to evaluate scientific
14 evidence to give as critical an opinion as I
15 could as to the data they were producing, and
16 their interpretation.
17 I was never viewed as a publicity person
18 for them.
19 I was viewed as scientist evaluating their
20 data.
21 I was viewed as a scientist.
22 BY MR. HOAG:
23 Q. Well, you pretty much did work for them,
24 didn't you --
25 A. No.

1 Q. -- for the tobacco companies?
2 A. No.
3 Q. When you worked with Schook-Hardy you met
4 with all the tobacco companies all the time, didn't
5 you?
6 MS. HENNINGER: Objection.
7 THE WITNESS: Schook-Hardy.
8 MS. HENNINGER: Objection.
9 That is assuming a fact not even in here.
10 MR. HOAG: I just want to know because it
11 goes to the credibility of the witness.
12 BY MR. HOAG:
13 Q. You were working with the tobacco
14 companies all the time when you worked with
15 Schook-Hardy, didn't you?
16 A. We may have different definitions of work.
17 They were not, really, paying my salary.
18 Q. Didn't they pay for research that you
19 conducted at UCLA, about \$300,000 or more dollars
20 worth per year for several years?
21 A. They gave -- I think it was called
22 officially a gift for research -- to UCLA. It had
23 absolutely no strings attached.
24 As to how the work would be carried out
25 and about the reporting of its findings, it was a gift

1 in which academic freedom was totally protected.
2 I assume you have looked at a copy of that
3 contract. You will see that was the case.
4 Q. The copy of the contract?
5 A. Between UCLA and the tobacco companies
6 that covers that gift.
7 Q. Well, have you ever told any tobacco
8 company folks that you don't feel that smoking is such
9 a big risk?
10 MS. HENNINGER: Objection.
11 Vague and ambiguous.
12 BY MR. HOAG:
13 Q. Have you ever said that?
14 MS. HENNINGER: Do you want to define what
15 a tobacco company person is?
16 BY MR. HOAG:
17 Q. How about a guy named Peoples? Have you
18 ever heard that name?
19 A. Peoples?
20 Not that I recall.
21 Q. Would it refresh your recollection if I
22 said that was maybe back in 1978?
23 A. That would be a very early twenty years
24 ago.
25 Q. Right.

1 A. That would substantiate the reason I don't
2 remember.
3 Q. Back in that period in 1978 did you feel
4 that smoking was not such a big risk?
5 MS. HENNINGER: Risk for what?
6 MR. HOAG: I am not talking to you.
7 I am asking the witness.
8 MS. HENNINGER: I am lodging an objection
9 to the fact that your question is vague and
10 ambiguous.
11 MR. HOAG: Just make the objection instead
12 of asking a question.
13 MS. HENNINGER: That is what I did.
14 THE WITNESS: Please restate it.
15 I have gotten lost in the interchange.
16 MR. HOAG: well, I will try.
17 Hopefully the objection will not be a
18 speaking objection.
19 MS. HENNINGER: I move to strike the
20 gratuitous comments of counsel.
21 MR. HOAG: Are you talking about you,
22 counsel, and your gratuitous speaking
23 objections?
24 MS. HENNINGER: No. I am talking about
25 your comments, counselor.

<p>Page 49</p> <p>1 I move to strike them. 2 I don't mean to strike my own comments. 3 MR. HOAG: That would be the most 4 appropriate thing to do at this point. Okay? 5 BY MR. HOAG: 6 Q. Let me ask you this question. 7 A. All right. 8 Q. Back in 1978 -- 9 A. Yes. 10 Q. -- did you believe that smoking is not 11 such a big risk? 12 A. Well, I guess I have to ask: Risk of 13 what? 14 Q. Did you believe that smoking was a risk 15 for anything back in 1978? 16 A. Well, by 1978 I think the epidemiologic 17 evidence of smoking as a risk factor was probably 18 known and I suspect I knew it at that time. 19 It is a little hard recalling exactly what 20 I thought nineteen years ago, but I would probably 21 have had that information. 22 Q. Well, given the fact that that was 23 fourteen years after the Surgeon General's report 24 related to smoke and lung cancer I suppose that you 25 would have.</p>	<p>Page 52</p> <p>1 In any event, it is very difficult to 2 precisely calculate how much time and effort you 3 devote to one project versus another. 4 You don't really keep hourly records when 5 you do research. 6 You understand what I am saying, I 7 presume. 8 Q. One of the things I heard you saying was 9 that the tobacco companies wanted you to do more 10 direct research related to tobacco and its health 11 effects? 12 A. They were interested in the title of the 13 project: Tobacco and Health. 14 I would say that was my impression. I 15 can't say that with absolute certainty, just 16 recalling. 17 I only base that on the fact that as I 18 recall I suggested initially that about 35% of the 19 program or about a third would be related to the 20 tobacco and two-thirds would be related to other 21 things. 22 As I recall, the final contract I went 23 through was about fifty percent related to tobacco and 24 health and fifty percent anything else that we wanted, 25 so I am just constructing it on that basis.</p>
<p>Page 50</p> <p>1 Right? 2 A. That is what I just said. 3 It was actually more than twenty years 4 after the initial epidemiologic reports so I presume I 5 did, yes; but I said that. 6 Q. So you did think that smoking was a big 7 risk back in 1978; is that correct? 8 MS. HENNINGER: Objection. 9 Mischaracterization of the statement. 10 BY MR. HOAG: 11 Q. Is that correct, sir? 12 A. Well, again I ask you if you have 13 completed your sentence. 14 Risk of what? 15 Q. Lung cancer. 16 A. Okay. So restate the question then. 17 Q. Back in 1978 did you feel that smoking was 18 not such a big risk for lung cancer? 19 A. Well, I can't cast my line back precisely 20 because I don't remember exactly what I was thinking 21 in 1978. 22 I have speculated that I would have known 23 the general epidemiologic evidence at that time and 24 would have probably considered it a risk factor as we 25 have discussed already, but I can't remember precisely</p>	<p>Page 53</p> <p>1 I don't really -- I was not clear on what 2 discussions went into funding that on the tobacco 3 side. 4 Q. Do you recall having a meeting around 5 October 4th of 1978 which was essentially a report 6 session in which you apprised the contributors, 7 meaning all of the tobacco companies, of significant 8 work under way under your direction? 9 A. Honestly, no, I don't recall that. 10 Q. Do you recall ever doing that, ever giving 11 summaries to tobacco company executives about the work 12 that you did from time to time? 13 A. The only time I can recall giving a 14 summary was when we asked for an extension beyond the 15 five-year period when we were asked to make a report 16 on our progress. 17 I remember there were tobacco company 18 representatives, but I most remember that they brought 19 in some really outstanding senior scientists from the 20 United States to hear the reports and evaluation and I 21 presume recommend to them whether the extension should 22 be continued. 23 That is the only report that sticks in my 24 memory. 25 Q. Were you ever given money from</p>
<p>Page 51</p> <p>1 what I thought in 1978. 2 Q. Beginning back in 1974, isn't it true that 3 Phillip Morris, R.J. Reynolds Tobacco Associates, 4 Incorporated, U.S. Tobacco and Brown & Williamson 5 contributed to what is known as the UCLA project to 6 the tune of \$350,000 per year? 7 A. \$350,000, I think, for the first year and 8 \$300,000 thereafter; but the answer would be yes, I 9 think. 10 Q. That UCLA project, the portion of it that 11 actually dealt with tobacco, was probably less than 12 fifty percent; is that correct? 13 A. In practical terms, it came out to be 14 considerably less than fifty percent. 15 When we undertook it, I think I agreed 16 that it would constitute approximately fifty percent. 17 I wanted to do less. 18 I think the companies were really 19 interested in what effects tobacco had and they wanted 20 us to do more, but I think the agreed figure was fifty 21 percent as a figure that I could interpret liberally 22 since we would go wherever the research took us and we 23 would follow the lines of most exciting research. 24 That would be a rough figure, but it 25 wasn't a hard and fast figure.</p>	<p>Page 54</p> <p>1 Schook-Hardy to a special account for consultancy? 2 A. Not that I recall. 3 I got an honorarium for the talk I gave 4 there. I have already told you about that talk. 5 No, I got no other monies from Schook 6 Hardy. 7 Q. Were you ever fined for any research you 8 did? 9 MS. HENNINGER: Object on the grounds it's 10 vague and ambiguous. 11 THE WITNESS: Tell me what you mean 12 fined? 13 MR. HOAG: I think you know. 14 MS. HENNINGER: Object. 15 BY MR. HOAG: 16 Q. You don't know what I mean, Doctor? 17 A. Well, I think I know where you are going 18 but I don't want to speculate as to where you are 19 going. That is not my job. 20 I will certainly try and answer and give 21 you answers as cleanly and honestly as I can. 22 Q. Were you ever accused of carrying on 23 unorthodox experiments -- 24 A. Yes. 25 Q. -- involving genetic engineering?</p>

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